

## ABSTRACT OF THE DISCLOSURE

A system for analyzing mass spectrometric data is provided, which has an data input means for entering mass spectrometric data of a parent ion and dissociated ions resulting from multiple dissociation of the parent ion, and an analytical means for providing characteristics of a candidate for estimated  
5 structure of a precursor ion that is representative of pre-dissociation structure at each stage of dissociation. The system analyzes one of the structure of precursor ion at each stage of dissociation and the structure of parent ion based on the characteristics and spectrometric data.

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